Exterior/Interior Landscaping

Exterior/Interior Landscaping includes standards to prepare students for creating aesthetic environments for homes and industries. As the population expands and economies grow, the demand for planned and creative exterior and interior landscapes increases. The desire for appropriate landscape materials and designs will grow in the 21st century.

Pre-requisite: **Any fundamental course in Horticulture Sub-cluster**

Recommended Credit: **½ or 1**

Recommended Grade Levels: **10th, 11th or 12th**

*   **½ denotes learning expectations that must be met when teaching the course for ½ credit.**

**   **All learning expectations must be met when teaching the course for 1 credit.**

Exterior/Interior Landscaping

<u>Standard 1.0</u>

The student will debate the meaning and purpose of landscaping, skills required for exterior and interior construction, and maintenance of a landscape.

<u>Standard 2.0</u>

The student will determine business concepts needed in a landscaping business.

<u>Standard 3.0</u>

The student will select the proper trees and shrubs to use and maintain in a landscape.

<u>Standard 4.0</u>

The student will evaluate the use of various ground covers, vines and other landscape plants; differentiating among annual, perennial, and biennial flowers.

<u>Standard 5.0</u>

The student will compare different turf grasses and describe methods of lawn installation.

<u>Standard 6.0</u>

The student will apply art concepts to various landscape designs.

<u>Standard 7.0</u>

The student will develop cost estimates for various landscape designs and packages.

<u>Standard 8.0</u>

The student will design a landscape irrigation system.

<u>Standard 9.0</u>

The student will evaluate the importance of the interior plantscape industry.

<u>Standard 10.0</u>

The student will integrate academic competencies in landscaping.

<u>Standard 11.0</u>

The student will develop premier leadership and personal growth to strengthen landscaping skills.

Exterior and Interior Landscaping

Course Description:
This course is designed to introduce students to the mechanics of landscaping. They will learn basic skills in drafting, identifying and selecting plant material, setting up a small business and other practical skills needed in the field of landscaping. In addition, the student will develop leadership skills necessary for directing employees and working with consumers.

Standard 1.0
The student will debate the meaning and purpose of landscaping, skills required for exterior and interior construction, and maintenance of a landscape.

Learning Expectations:
The student will:

1.1	Evaluate job opportunities available in landscaping.	½
1.2	Select equipment that should be used in a landscaping business.	½
1.3	Assess interpersonal, business and technical skills needed in landscaping.	½
1.4	Discuss basic principles for the proper care of a landscape after its installation.	½

Evidence Standard is Met:
The student will:
- Prepare a job description for employment in landscaping.
- Relate equipment to particular tasks in landscaping.
- Demonstrate skills needed for communicating with customers and employees.
- Prescribe basic maintenance requirements of a landscaping project.

Integration/Linkages
Language Arts, Leadership, Marketing, SCANS (Secretary's Commission on Achieving Necessary Skills), OSHA Standards, TOSHA Standards

Sample Performance Tasks
- Relate terms associated with landscaping design and construction to landscape careers.
- Describe the work of a landscape contractor.
- Develop a portfolio of landscaping professions and skills needed for the various professions of the portfolio.
- Compare the skills needed for landscape design and maintenance.

Standard 2.0
The student will determine business concepts needed in a landscaping business.

Learning Expectations:
The student will:
2.1   Compare three legal forms of business operation.
2.2   Examine components of a business in landscaping.
2.3   Assess factors used to determine where to locate and start a landscaping business.
2.4   Evaluate skills and resources needed in starting a small business.

Evidence Standard is Met:
The student will:
- Prepare examples of three legal forms of business operation.
- Compare the advantages and disadvantages of business ownership.
- Evaluate principles used in a business operation.
- Demonstrate skills needed in starting a small business operation.

Integration/Linkages
Language Arts, Mathematics, Geography, Marketing, Business Education, SCANS (Secretary's Commission on Achieving Necessary Skills)

Sample Performance Tasks
- Describe the advantages of owning and not owning your own business.
- Describe and compare three legal forms of business operation.
- Develop a portfolio of possible sources of funds for business ventures.
- Determine the uses for a computer in a landscape business.
- Compare the advantages and disadvantages of business ownership.

Standard 3,0
The student will select the proper trees and shrubs to use and maintain in a landscape.

Learning Expectations:
The student will:

3.1	Select trees and shrubs for a specific area in a landscape or hardiness zone.	½
3.2	Evaluate planting techniques for trees and shrubs.	½
3.3	Examine types of mulches and fertilizers available for trees and shrubs.	½
3.4	Distinguish between bare-root, ball and burlap, and containerized trees and shrubs.	½
3.5	Diagram the basic parts of a tree and shrub.	½
3.6	Evaluate techniques for pruning and caring for trees and shrubs.	½
3.7	Maintain equipment for pruning.	½

Evidence Standard is Met:
The student will:
- Determine trees and shrubs for specific areas in a landscape plan.
- Prepare a hardiness zone map.
- Recommend types of mulches and fertilizers available in the local area.
- Draw and label a bare-root, ball and burlap, and a containerized plant.
- Demonstrate how to prune a tree or shrub properly.
- Demonstrate how to maintain equipment used for pruning trees.
- Recommend the proper time to prune trees and shrubs.

Integration/Linkages
English, Biology, Mathematics, Art, SCANS (Secretary's Commission on Achieving Necessary Skills), National FFA Guidelines for Nursery and Landscape Design CDE, career development event

Sample Performance Tasks
- Evaluate the strengths and weaknesses of specific trees in a landscape.
- Compare the uses of bare-root, ball and burlap, and containerized plants.
- Explain the difference between exotic and native trees.
- Compare and contrast various types of mulches.
- Describe environmental conditions that affect the survival for planted trees.
- Draw the parts of a tree or shrub that are important to consider when pruning.
- Demonstrate which limbs are to be removed when pruning a tree or a shrub.
- Describe different ways to prune.
- Compare the advantages of pruning during different seasons.

Standard 4.0
The student will evaluate the use of various ground covers, vines and other landscape plants; differentiating among annual, perennial, and biennial flowers.

Learning Expectations:

The student will:

4.1	Distinguish between ground covers and vines.	½
4.2	Evaluate methods of installing vines and ground covers.	½
4.3	Illustrate how vines and ground covers solve special landscape problems.	½
4.4	Compare terms associated with vines and ground covers.	½
4.5	Distinguish between perennials, annuals and biennials.	½

<u>Evidence Standard is Met:</u>
The student will:
- Compare terms associated with ground covers, vines and flowers.
- Determine which method for installing ground covers and vines should be used on a landscaping site.
- Recommend plants that can solve special landscape problems.
- Contrast the uses of ground covers and vines.
- Recommend annuals, perennial and biennial flowers for various seasons and landscape sites.

<u>Integration/Linkages</u>
Biology, Ecology, Language Arts, Art, SCANS (Secretary's Commission on Achieving Necessary Skills), National FFA Guidelines for Nursery and Landscape Design CDE

<u>Sample Performance Tasks</u>
- Describe the different physical attributes of ground covers and vines.
- Explain ways in which ground covers and vines are used to solve special landscape problems.
- Develop a portfolio describing the methods for the installation and maintenance of ground cover and vine planting.
- Construct a perennial, annual or biennial bed.

Standard 5.0
The student will compare different turf grasses and describe methods of lawn installation.

<u>Learning Expectations:</u>
The student will:

5.1	Evaluate the functions and components of a turfgrass.	½
5.2	Evaluate methods of lawn installation.	½
5.3	Differentiate between types of grasses used in the Southeast.	½
5.4	Prescribe needed equipment to install turf.	½

<u>Evidence Standard is Met:</u>
The student will:
- Compare terms related to turf.
- Recommend methods of lawn installation, based on geographic location and plant specie.
- Compare the advantages and disadvantages of different types of grasses.
- Demonstrate the maintenance of basic turf equipment.

<u>Integration/Linkages</u>
Mathematics, Language Arts, Biology, Art, Chemistry, SCANS (Secretary's Commission on Achieving Necessary Skills)

<u>Sample Performance Tasks</u>
- Recommend varieties of grasses based on use and environmental conditions.
- Describe four methods of lawn installation.
- Demonstrate the calibration of a spreader.
- Explain at what time of year warm and cool season grasses should be planted.
- Present how soil pH, drainage, and fertilization rates affect turf growth and health.

Standard 6.0
The student will apply art concepts to various landscape designs.

Learning Expectations:

The student will:

6.1   Determine the functions of basic drafting tools.
6.2   Draw and compare the different styles of lettering and symbols used in landscaping.
6.3   Use instruments needed for landscape designing.
6.4   Analyze a proposed landscape site's suitability for plants and develop a design for it.
6.5   Evaluate the outdoor room concept.
6.6   Evaluate landscape design principles.
6.7   Prepare a landscape plan for construction.

Evidence Standard is Met:

The student will:

- Draw and compare the different styles of lettering used in landscape design.
- Demonstrate the use of landscape design tools to draw symbols used in a landscape plan.
- Assess the advantages and disadvantages of various landscaping sites.
- Define the concept and purpose of an outdoor room.
- Describe the uses of an outdoor room.
- Identify and explain five basic landscape design principles.
- Label a final landscape plan.

Integration/Linkages

Language Arts, Art, Technology Education, Mathematics, Geometry, SCANS (Secretary's Commission on Achieving Necessary Skills), Drafting, National FFA Guidelines for Nursery and Landscape Design CDE

Sample Performance Tasks

- Describe how to properly use the instruments important in landscape designing.
- Measure and interpret lengths and distances to scale.
- Compare the advantages and disadvantages of four methods of lettering used in landscape designs.
- Interpret a landscape plan.
- Compare and contrast outdoor and indoor space requirements.
- Explain how the five principles of design are applied to landscaping projects.
- Arrange plant material in linear and corner designs.
- Create a portfolio of various landscape plans.
- Prepare a final landscape plan, using computer software.

Standard 7.0
The student will develop cost estimates for various landscape designs and packages.

Learning Expectations:

The student will:

7.1   Compare the differences between wholesale merchandise, retail merchandise, an estimate, and a bid.
7.2   Prepare a maintenance-cost analysis for a landscaping project.
7.3   Determine the components of a price estimate for a landscaping project.

Evidence Standard is Met:

The student will:

- Discuss the differences of wholesale and retail pricing in the landscape business.
- Complete an estimate for a landscape job.
- Write a bid for a landscape job.

Integration/Linkages

Mathematics, Language Arts, Economics, Business and Marketing, Technology Education, SCANS (Secretary's Commission on Achieving Necessary Skills)

- Recommend pricing strategies for wholesale and retail products in local business.
- Compare the difference between an estimate and bid.
- Develop a maintenance estimate from seven items of data.
- Prepare an estimate for a simulated landscaping job.

Standard 8.0
The student will design a landscape irrigation system.

Learning Expectations:
The student will:
8.1   Evaluate the advantages and disadvantages of different types of irrigation systems.
8.2   Discuss the history of irrigation in American agriculture.

Evidence Standard is Met:
The student will:
- List and discuss types of irrigation.
- Design a drip irrigation system.
- Design a sprinkler irrigation system.

Integration/Linkages
Biology, Ecology, Mathematics, Language Arts, Art, SCANS (Secretary's Commission on Achieving Necessary Skills)

Sample Performance Tasks
- Distinguish between sprinkler and trickle irrigation use.
- Select irrigation sprinkler heads for the appropriate job.
- Determine the water needs of plants for a geographical area.
- Select an irrigation system appropriate for the landscape of a geographical area.
- Using computer software, design an irrigation system for a landscape project.

Standard 9.0
The student will evaluate the importance of the interior plantscape industry.

Learning Expectations:
The student will:

9.1	Discuss the status and problems of the interior plantscape industry.	½
9.2	Define terms related to interior plantscape industry.	½
9.3	Discuss the installation and maintenance of indoor plants.	½
9.4	Discuss how interior landscaping is related to other professional fields.	½

Evidence Standard is Met:
The student will:
- Research and discuss the status of interior landscaping industry.
- List and discuss problems that are unique to interior landscaping.
- Demonstrate and discuss how to install and maintain plants
- Research and discuss how interior landscape is related to other professions, such as architecture, art, and landscape maintenance.

Integration/Linkages
Language Arts, Biology, Mathematics, Art, SCANS (Secretary's Commission on Achieving Necessary Skills)

Sample Performance Tasks
- Discuss the current status of the interior plantscape industry.
- Develop a portfolio of problems encountered with interior plants.
- Describe the role of light quality, intensity, and duration for interior plants.

- Demonstrate the steps in proper installation, watering, and drainage.
- Describe the interdisciplinary relationship required between architects, art, landscape architects, and maintenance professionals.
- Develop a portfolio of examples of interior plantscape designs.

Standard 10.0
The student will integrate academic competencies in landscaping.

Language Arts:
The student will:

10.1	Give oral presentations on installing and maintaining a landscape.	½
10.2	Complete forms used in the landscape industry.	
10.3	Demonstrate presentation skills in developing landscape designs for prospective customers.	

Mathematics:
The student will:

10.4	Calculate basic percentages for pricing inventories.	½
10.5	Perform a cost analysis of materials needed for a landscaping job.	
10.6	Use math formulas to calculate cost, income and profit for a landscaping business.	
10.7	Use basic geometry formulas to determine designs for landscaping projects.	
10.8	Calculate measurements, using fractions and whole numbers to determine materials needed.	

Science:
The student will:

10.9	Apply principles of botany to landscaping.	½
10.10	Use basic biology knowledge in propagating plants.	½
10.11	Use basic earth science knowledge to determine soil properties.	½
10.12	Evaluate the principles of basic environmental science to landscaping.	
10.13	Read a topographical and soil map to determine land suitability for plants.	

Evidence Standard is Met:
The student will:
- Research information on the Internet about plants used in landscaping.
- Create a presentation for a landscape plan with visual aids.
- Demonstrate the use of current landscaping software by preparing landscaping plans.
- Demonstrate the use of current software by preparing budgets and proposals for landscaping projects.

Integration/Linkages
Language Arts, Mathematics, Biology, Ecology, Technology Education, Drafting, SCANS (Secretary's Commission on Achieving Necessary Skills)

Sample Performance Tasks
- Using the Internet, prepare a report from information gained on landscape construction.
- Give an oral presentation on installing or maintaining a landscape.
- Using computer software, present a finished drawing of a landscape.

Standard 11.0
The student will develop premier leadership and personal growth to strengthen landscaping skills.

Learning Expectations
The student will:

11.1	Prepare a six-to-eight-minute presentation and answer questions on some aspect of landscaping.	½
11.2	Develop a simulated SAEP, supervised agricultural experience program, using a landscaping business.	½
11.3	Prepare a short four-to-five-minute presentation as if you would be explaining concepts to a group tour.	
11.4	Compare the advantages and disadvantages of new technology used in the landscaping industry.	

Evidence Standard is Met:

The student will:
- Plan an SAEP that is directly related or suits landscaping.
- Give a six-to-eight-minute oral presentation and answer questions on some aspect of landscaping.
- Develop a four-to-five-minute oral presentation for a group meeting.
- Prepare a sample spreadsheet, showing how new technology can save a landscape business owner money.

Integration/Linkages

Mathematics, Science, Social Studies, Business, Marketing, Language Arts, SCANS (Secretary's Commission on Achieving Necessary Skills), National FFA Guidelines for Proficiency Awards and Degrees, National FFA Guidelines for Community Education Programs

Sample Performance Tasks
- Give a group presentation presenting a SAEP directly related to landscaping.
- Develop a six-to-eight-minute prepared speech on some aspect of landscaping.
- Describe landscaping in an extemporaneous speech.
- Develop a spreadsheet illustrating how technology can save a landscape business money.
- Complete a FFA proficiency application for a landscaping business.
- Complete an application for an advanced degree in the FFA.
- Participate in the FFA Food for America program.
- Participate in the America Reads Challenge program.
- Participate in the FFA PALS program.